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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,724	06/29/2001	Hajime Izawa	SUMI-005	8532
7590	10/08/2004		EXAMINER	
Kenneth D'Alessandro Sierra Patent Group PO Box 6149 Stateline, NV 89449			YOON, TAE H	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/869,724	IZAWA ET AL.	
	Examiner	Art Unit	
	Tae H. Yoon	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 August 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 8-13 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 8-13 and 20-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-13 and 20-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is New Matter rejection since the recited particle size, μm (rather than nm), does not have support in the originally filed specification.

The following rejection is maintained. The specification and claims recites a conductive oxide powder being a hydrophilic powder, however, no properties with respect to said hydrophilic powder and none of the hydrophilic conductive oxide powder is disclosed. Applicant failed to describe said hydrophilic powder adequately in the specification since the scope of said conductive oxide powder being also a hydrophilic powder is not defined.

Applicant asserts that a hydrophilic powder is a powder that combines with water when expose with water and that contains a large number of OH groups at the surface thereof. Applicant also states that there is standard which determines whether the conductive oxide powder is hydrophilic or non- hydrophilic and that it is determined by actually dispersing the powder in water. For example, Sato et al (US 5,204,177) teach

antimony doped tin oxide (ATO) before calcinations as a hydrophilic powder at col. 3, line 35 to col. 4, line 58, but the instant example 1 teaches that the ATO powder as a non- hydrophilic powder. Thus applicant's statement and the teaching Sato et al are why the scope (or definition) of said hydrophilic conductive oxide powder is needed in the specification since there is no standard method of measuring the hydrophilicity as stated by applicant. The article by NGT Corporation issued 21 December 1985 teaches that oxides of metals are hydrophilic since the surface of metal oxides reacts with moisture in the air, and thus the ATO powder of the instant example 1 would be a hydrophilic powder since the surface of the ATO powder would react with moisture in the air.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-13 and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following rejection is maintained for reason of record and the reason given in above.

The recited hydrophilic powder as a conductive oxide powder is indefinite since the nature (or definition) of said hydrophilic powder is neither taught nor defined. Is it water-soluble or water-dispersible or hydrophilic compound coated or treated or hydrolyzable, for example?

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yukinobu et al (US 5,411,792).

The following rejection is maintained for reason of record and following response.

The metal oxide of Yukinobu et al meets the instant non- hydrophilic conductive powder inherently absent any definition thereof and the reason given under 112, 1st pp.

Claims 23 and 24 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yukinobu et al (US 6,261,479) or Tamai et al (US 2002/0051879).

The rejection is maintained for reason of record and above.

Claims 23 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sato et al (US 5,204,177).

The metal oxide of Sato et al meets the instant non- hydrophilic conductive powder inherently absent any definition thereof and the reason given under 112, 1st pp.

Claims 23 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Murouchi et al (US 5,504,133).

The f rejection is maintained for reason of record.

Claims 20, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as obvious over Murouchi et al (US 5,504,133).

Murouchi et al teach employing a solvent having at least one ketone group at col. 3, line 31, and acetone is the art well known ketone-containing solvent.

It would have been obvious to one skilled in the art at the time of invention to utilize acetone with xylene with a ratio of 7:3 in Murouchi et al since Murouchi et al teach employing a solvent having at least one ketone group and since acetone is the art well known ketone-containing solvent.

Claims 23 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nishihara et al (US 5,518,810).

The metal oxide of Nishihara et al meets the instant non- hydrophilic conductive powder inherently absent any definition thereof and the reason given under 112, 1st pp.

Claims 20, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as obvious over Nishihara et al (US 5,518,810).

The instant claim recites particular solvents mixtures over Nishihara et al.

It would have been obvious to one skilled in the art at the time of invention to utilize acetone with cyclohexanone with a ratio of 7:3 in Nishihara et al since Nishihara et al teach employing a mixed solvent at col. 7, lines 1-5 and since choosing such mixture from the disclosure is considered a routine practice.

Claims 20, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as obvious over Tamai et al (US 2002/0051879).

The rejection is maintained for reason of record.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1714

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tae H Yoon
Primary Examiner
Art Unit 1714

THY/September 28, 2004